IN THE SPECIFICATION:

At Paragraph 0017:

Exhaust assembly 52 includes a pair of exhaust nozzle assemblies 70 and suppression system 72. Suppression system 72, as described in more detail below, facilitates suppressing an exhaust infrared signature of gas turbine engine assembly 42 during engine operation. As used herein, the term suppression mean that the infrared signature emanating from ~~gas turbine engine assembly 10~~ gas turbine engine assembly 42 is facilitated to be reduced below a pre-determined threshold value which is indicative of the acquisition, tracking, and/or targeting capability of a particular infrared threat.

At Paragraph 0021:

Exhaust exiting primary nozzles 76 is channeled into suppression system 72. Suppression system 72 includes a pair of flow channels 90 that are each coupled to an access door 12. More specifically, in the exemplary embodiment, flow channel 90 is formed integrally with door 12. Each flow channel 90 is coupled in flow communication with primary nozzles 76 such that flow exiting nozzles 76 is routed through flow channels 90 before being discharged to the atmosphere. More specifically, a cross-sectional area of each flow channel is selected to form an annulus with each respective primary nozzle 76, such that flow exiting nozzles 76 forms a venturi effect which creates a local low pressure immediately downstream from each nozzle discharge end 86. Accordingly, in one embodiment, each flow channel 90 is tapered from an ~~inlet end 12~~ inlet end 92 coupled to primary nozzle 76, through an exit aperture or discharge end 94. More specifically, in the exemplary embodiment, flow channel 90 is tapered such that a cross-sectional area defined within flow channel 90 by an inner surface 96 of flow channel 90 is

progressively decreased from ~~inlet end 12~~ inlet end 92 to discharge end 94. Accordingly, the tapering facilitates ensuring a constant exhaust flow path velocity is maintained within flow channel 90.

At Paragraph 0025:

Slots 104 are aft facing such that exhaust gases entering flow channel 90 are prevented from exiting flow channel 90 through ~~slots 100~~ slots 104. More specifically, air entering slots 104 forms a cooling boundary layer to facilitate cooling those portions of flow channel inner surface 96 that are directly visible through flow channel exit aperture 94. Accordingly, the combination of exit aperture 94, flow channel length L_C, and elbow 102 facilitate obstructing or preventing direct line-of-sight viewing of uncooled portions of flow channel inner surface 96 through exit aperture 94. In addition, in the exemplary embodiment, at least a portion of flow channel inner surface 96 is coated with a high emissivity coating to substantially prevent infrared reflections through exit aperture 94 that may be emitted or originate from hotter "hidden" surfaces. In an alternative embodiment, channel inner surface 96 includes a surface characteristic that substantially prevents infrared reflections through exit aperture 94 that may be emitted or originate from hotter "hidden" surfaces.

At Paragraph 0026:

Primary nozzles 76 and flow channels 90 are surrounded by an insulated cowl 120 such that nozzles 76 and flow channels 90 are externally obstructed from direct view. More specifically, cowl 120 is coupled around primary nozzles 76 and flow channels 90 such that at least one cooling passage 126 is defined between an inner surface 128 of cowl 120 and nozzles and flow channels 76 and 90, respectively. More specifically, cooling passage 126 is coupled in flow communication with flow channel ~~slots 100~~ slots 104. Moreover, cowl 120 facilitates

preventing hot surfaces extending over nozzles 76 and flow channels 90 from emitting infrared signals radially outwardly. Cowl 120 includes a fairing or boat tail portion 122 and an inlet mixing portion 124. Boat tail portion 122 extends between fuselage 50 and flow channel elbow 102 to provide structural support to flow channel 90. In the exemplary embodiment, boat tail portion 122 is tapered to a thin trailing edge 126 to facilitate reducing drag during flight operations.

At Paragraph 0028:

Ambient air channeled through openings 130 facilitates annulus mixing and flow channel cooling. More specifically, a portion 140 of ambient air entering openings 130, ~~represented by arrow 140,~~ is channeled into an annulus surrounding primary nozzles 76, and the remaining portion 142 of ambient air entering openings 130, ~~represented by arrow 142,~~ is channeled into cooling passage 126 and channeled to cooling ~~slots 100~~ slots 104. Air 140 is directed into the annulus surrounding primary nozzles 76 to facilitate mixing with exhaust gases discharged from primary nozzles 76.

At Paragraph 0033:

During operation, cooling air is supplied to ~~gas turbine engine assembly 10~~ gas turbine engine assembly 42 through cowl openings 130. A portion 140 of such ambient air is channeled into the annulus surrounding primary nozzles 76 to facilitate reducing an operating temperature of external surfaces of primary nozzles 76. More specifically, the low pressure area created by the venturi effect created as exhaust flow exits primary nozzles 76 facilitates drawing additional ambient air 140 into the channel extending downstream from primary nozzles 76. The nozzle exit aperture defined at discharge end 86 facilitates inducing mixing of ambient cooling air 140 and exhaust gases discharged from core engine 40 such that hot exhaust gases at primary nozzle

discharge end 86 are facilitated to be suppressed. In addition, the mixing enhancement features included at nozzle discharge end 86 facilitate enhancing shearing and mixing between exhaust and ambient air flows.

At Paragraph 0034:

In addition, a portion 142 of such ambient air is channeled through passage 126 and to ~~slots 100~~ slots 104, during operation, wherein remaining air 142 entering flow channel 90 provides a layer of cooling air to facilitate cooling aft portions of flow channel inner surface 96 that are visible through exit aperture 94. Accordingly, ~~slots 100~~ slots 104 facilitate reducing an operating temperature of exhaust flow path surfaces. Additional suppression is achieved through the combination of exit aperture 94, flow channel length L_C, and elbow 102, which facilitate obstructing or preventing direct line-of-sight viewing of uncooled portions of flow channel inner surface 96 through exit aperture 94. Accordingly, suppression system 72 facilitates the operating temperature of engine exhaust through gas turbine engine assembly 10, thus suppressing the infrared signature generated by core engines 40.